(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 16 January 2003 (16.01.2003)

PCT

(10) International Publication Number WO 03/004057 A1

- (51) International Patent Classification⁷: A61K 45/00, 38/00, 39/395, 48/00, G01N 33/50, A61P 37/00
- (21) International Application Number: PCT/CA02/01012
- (22) International Filing Date:

3 July 2002 (03.07.2002)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/302,385

3 July 2001 (03.07.2001) US

- (71) Applicant (for all designated States except US): THE HOSPITAL FOR SICK CHILDREN [CA/CA]; 555 University Avenue, Toronto, Ontario M5G 1X8 (CA).
- (72) Inventors; and

WO 03/004057

(75) Inventors/Applicants (for US only): ROIFMAN, Chaim, M. [CA/CA]; 33 Christine Crescent, North York, Ontario M2R 1A4 (CA). FREYWALD, Andrew [CA/CA]; 725 New Westminster Drive, Unit 54, Thornhill, Ontario L4J 7Y9 (CA). SHARFE, Nigel [NZ/CA]; 388 College Street, Floor 2, Toronto, Ontario M5T 1S7 (CA). GRUNBERGER, Thomas [CA/CA]; 63 Robingrove Road, Toronto, Ontario M2R 3A1 (CA). GRUNEBAUM, Eyal [II/IL]; 50 Dov Hoz Street, P.O. Box 9, 44100 Kfar-Saba (II)

- (74) Agents: KANG, Yoon et al.; Smart & Biggar, Suite 1500, 438 University Avenue, P.O. Box 111, Toronto, Ontario M5G 2K8 (CA).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: EPHRIN AND EPH RECEPTOR MEDIATED IMMUNE MODULATION

O br (Thymocytes T-ceils Jurkat

allergy, graft versus host disease, transplant rejection and cancer.

(57) Abstract: Methods and compositions for immune modulation are described. The methods involve modulating an ephrin or Eph receptor which consequently modulates an immune response, in particular a T cell response, modulates immune adhesion cell, modulates chemotaxis and/or migration or modulates apoptosis. The method is useful in treating a variety of conditions including autoimmune disease,